

BUSHUYEV, V.P.; GUBIN, G.V.; GONCHARENKO, Yu.I.; KARMAZIN, V.I.;
MARGULIS, V.S.; MITROV, V.A.; NIKOLAYERENKO, N.O.; BOBRUSHKIN, L.G.;
BUROV, A.I.; RYBAKOV, V.N.; SOSHIN, A.F.; TATSIENKO, P.A.;
TOVSTANOVSKIY, O.D.; YUROV, P.P.; Prinimali uchastiye:
NIFAGINA, A.A.; CHERNYY, I.I.; GERSHOYG, Yu.G.; KOSTIKOV, A.G.;
DOLGIKH, M.A.; MOVSKOVICH, S.A.; STUPIN, D.D.; NEVOYSA, G.G.

Magnetization roasting of Kerch ores in the experimental
factory of Kamysh-Burun Combine. Gor. zhur. no.12:30-37
D '62. (MIRA 15:11)

1. Institut Mekhanobrchermet, Krivoy Rog (for Bushuyev,
Gubin, Goncharenko, Karmazin, Margulis, Mitrov, Nikolayenko,
Nifagina, Chernyy, Gershoyg, Kostikov). 2. Kamyshburunskiy
zhelezorudnyy kombinat, Kerch' (for Bobrushkin, Burov,
Rybakov, Soshin, Tatsiyenko, Tovstanovskiy, Yurov, Dolgikh,
M.A.; Movskovich, S.A.; Stupin, D.D.; Nevoysa).
(Kerch Peninsula—Ore dressing)
(Iron ores)

MOVSHOVICH, S.M.

Determination of the domain of influence of some particular points
of a higher order. Vest.Mosk.us.Ser.mat.,mekh.,astron.,fiz.,
khim. no.6:3-11 '59. (MIRA 13:10)

1. Kafedra differential'nykh uravneniy Moskovskogo universiteta.
(Differential equations)

1.35
S/024/62/000/006/004/020
E140/E135

AUTHORS: Gnoyenskiy, I.S., and Movshovich, S.M. (Moscow)
TITLE: Application of a linear-programming method to a certain problem in the theory of servomechanisms
PERIODICAL: Akademiya nauk SSSR. Izvestiya. Otdeleniye tekhnicheskikh nauk. Energetika i avtomatika, no.6, 1962, 50-66

TEXT: The type of servomechanism considered is one in which to the input signal (control signal) is added a component proportional to its own first derivative, with a coefficient varying in time, $c(t) f'(t)$. The system is described by an n-th order differential equation and has zero initial conditions. The input signal $f(t)$ is initially unknown, but it may be known that it belongs to a given class of functions; it is assumed to have bounded rate of change, and $f'(t)$ has only a finite number of discontinuities of the first kind in any finite interval. The signal $f(t)$ is freed of high-frequency noise by filtering. The gain factor $c(t)$ is assumed piecewise constant and bounded. The quality factor of the system will be the error $y(t) - f(t)$.

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Application of a linear-programming ... 5/24/62/000/006/004/020
and will be considered only at fixed instants of time. Two problems
are defined in this framework: 1) to minimise the maximum possible
mismatch existing at the prescribed instants; 2) that the maximum
possible mismatch at the prescribed instants be always less than a
given prescribed magnitude. These problems are to be solved by
finding an appropriate preassigned programme for $c(t)$. It is
shown that both of these problems can be reduced to problems in
linear programming and a detailed numerical example is given.
There are 4 tables.

SUBMITTED: June 12, 1962

Card 2/2

69780

S/055/59/000/06/01/027

16 3410

AUTHOR: Movshovich, S.M.

TITLE: On the Determination of the Region of Influence of Some Singular Points of Higher Order

PERIODICAL: Vestnik Moskovskogo universiteta, Seriya matematiki, mekhaniki, astronomii, fiziki, khimii, 1959, No.6, pp. 3-11.

TEXT: Theorem 1: If the rank of the matrix $A = \|a_{ij}\|$ equals n and $k = 2p$, then there exists no bounded domain which contains completely a trajectory different from the singular point 0, of the system

$$(4) \quad \frac{dx_i}{dt} = \sum_{j=1}^n a_{ij} x_j^k \quad (i=1, 2, \dots, n).$$

Theorem 2: Let the rank of A be $n-1$ and $k = 2p$. If the singular point 0 is isolated, then no bounded domain contains a complete trajectory of (4) with the exception of the singular point.Theorem 3: Let $k = 2p+1$. If there exist c_i ($i=1, 2, \dots, n$) so that thequadratic form with the coefficients $\|c_i a_{ij} + c_j a_{ji}\|$ is positive definite, then no bounded domain contains a complete trajectory of (4) with the exception of the singular point. X

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On the Determination of the Region of Influence
of Some Singular Points of Higher Order

Given

$$(19) \quad \frac{dx_i}{dt} = \sum_{j=1}^n a_{ij} x_j^k + f_i(t, x_1, \dots, x_n), \quad i=1, \dots, n.$$

Let $k = 2p$, let the rank of A be n and

$$(20) \quad |f_i| \leq c_R \sum_{j=1}^n x_j^k$$

in a sphere of radius R. Let $M \leq n$ be the number of the f_i which do not vanish identically. Let $c_{\max} = \max_{1 \leq i \leq n} |c_i|$, where the c_i are defined by the system $\sum_{i=1}^n c_i a_{ij} = 1$.

Theorem 4: If in an n-dimensional sphere it holds $c_R < \frac{1}{M c_{\max}}$, then the sphere contains none complete trajectory of (19) with the exception of the singular point. If the inequation holds for all x, then the spherical region of influence (compare (Ref.1)) of the singular point is unbounded. Theorem 5 contains the corresponding assertion for the case $k = 2p+1$.

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On the Determination of the Region of Influence
of Some Singular Points of Higher Order

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S/055/59/000/06/01/027

The author mentions N.N.Nemytskiy and N.N.Krasovskiy.
There are 3 Soviet references.

ASSOCIATION: Kafedra differential'nykh uravneniy
(Department of Differential Equations)

SUBMITTED: April 25, 1959

X

Card 3/3

YUDIN, David Borisovich; GOL'SHTEYN, Ye.G.; MOVSHOVICH, S.M., red.;
GORYACHAYA, M.M., red.; MURASHOVA, N.Ya., tekhn.red.

[Linear programming; theory and finite methods] Lineinoe
programmirovaniye; teoriia i konechnye metody. Moskva,
Fizmatgiz, 1963. 775 p.
(MIRA 17:2)

L 20499-65 EPF(n)-2/EWT(d) Pg-4/Pk-4/P1-4/Po-4/Pq-4/Pu-4 IJP(c)/ASD(a)-5/
AFMD(p)/ESD(dp) WW/BC
ACCESSION NR: AP4048820 S/0280/64/000/005/0016/0029

AUTHOR: Gnoyeskiy, L.S. (Moscow); Movshovich, S. M. (Moscow)

TITLE: Application of the methods of mathematical programming to the problem of optimum control B

SOURCE: AN SSSR. Izv. Tekhnicheskaya kibernetika, no. 5, 1964, 16-29

TOPIC TAGS: automation, control system optimization, mathematical programming

ABSTRACT: The problem examined in this article is as follows: The differential equation

$$\dot{X} = A(t)X + b(t)u(t), \quad X(0) = X_0 \quad (1)$$

with continuous coefficients describes the behavior of a controlled system, where $A(t)$ is a square matrix of order n , $X(t)$ and $b(t)$ are the n -dimensional vectors. The control function $u(t)$ is piecewise continuous and $|u(t)| \leq 1$. It is required to find such $u_{opt}(t)$ from a given class of functions which would return the system to the origin from a position X_0 (x_1, \dots, x_n) in the shortest time T_{opt} . A more general problem, in which the phase

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plane coordinate is bounded, i.e. $|x_i(t)| \leq m_i$, $i=1, \dots, n$, is also investigated. The solution of (1) is of the form

$$X(T, u) = C(T) + \int_0^T G(T, t)u(t)dt. \quad (2)$$

so that the difficulty of solution is not only determined by the order of equation (1) but also by the form of the integrand function $G_i(T, t)$ in Cauchy's formula (2) (such as the number of extremum points in the interval $[0, T]$). The integrand can be approximated by a finite sum with arbitrary accuracy, which reduces both problems to the problem of the location of the minimum of a convex multivariate function $\phi(\tau, u)$ in a bounded region. First, a piecewise constant approximation reduces the problems to finding a minimum of a convex function with linear boundaries. A piecewise linear approximation results in the problem of minimization of a convex function with convex and linear boundaries, reducing drastically the number of variables at the same time. Minimization of the time required by the system to return to its origin is accomplished. A simplification of the simplex method, which allows the use of reference-free programming plans, is proposed and results in definite computational advantages in transitions from one instant of time to the next. An iteration method is proposed for the solution of the first problem, based on the Kuhn-Tucker optimality

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criterion and the Gol'shteyn-Yudin theorem (Avtomatika i Telemekhanika, 1963, XXIV, No. 12). It is shown that the derived algorithm gives a solution with a finite number of iterations. The method is then extended to the case of piecewise parabolic and piecewise polynomial approximation. This approximation allows a further decrease in the number of variable functions $\phi(T, u)$. The boundaries remain convex but their form becomes more complex with the increase in the degree of the polynomial. Orig. art. has: 47 equations, 3 tables and 1 figure.

ASSOCIATION: None

SUBMITTED: 03Jun64

ENCL: 00

SUB CODE: IE, DP

NO REF SOV: 007

OTHER: 002

Card 3/3

88498
S/133/60/000/012/009/015
A054/A027

11300

AUTHORS: Filonov, V.A., Engineer; Yudin, M.I., Engineer; Froshchenkov, N.A., Engineer, and Movshovits, V.S., Engineer

TITLE: Improved Production Process for Cold Rolled Alloy Steel Sheets

PERIODICAL: Stal', 1960, No. 12, pp. 116-118

TEXT: Until recently the production of the alloyed steel sheets, 0.5-3.0 mm thick, in the Zaporozhstal' Plant was divided into 8 stages. The technology had certain drawbacks, because the sheets had to be moved about a great deal during processing, their surface defects were numerous: 16.6-25.1% were defective, moreover, it was not possible to obtain the required mechanical properties. About 30% of the sheets had to be rejected because the strength limit was too low. In order to simplify and at the same time to improve this process, cold rolling tests were made with 12G2A (12G2A), 25KhGSA (25KhGSA), 30KhGSA (30KhGSA) and other steel sheets, 0.8-3.0 mm thick, omitting bright annealing, i.e., the second phase of the conventional production process. The tests were carried out on a 1,680 mm stand, at a maximum rolling speed of 3.95 m/sec and it was found that the 12G2A steel sheets, 0.8-1.0 mm thick and 730-1,270 mm wide could easily be rolled in 3-7 passes. The cold rolling of 25KhGSA and 30KhGSA steel sheets without bright annealing was only possible up to 1.2-3.0 mm thickness, irrespective of the strip width, with normal metal.

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Improved Production Process for Cold Rolled Alloy Steel Sheets

pressure at the rollers and with normal load on the main motor. Omitting bright annealing decreased rolling waste 2.2 times for the 12G2A and 3.2 times for the 25KhGSA and 30 KhGSA brand steels. Furthermore tests were carried out with cold rolling steel sheets (12G2A) containing manganese up to 0.5 mm thickness, without bright annealing and intermittent annealing, on a 4-high reversible mill stand (1,200 mm) and it was established that by applying this technology wastage could be reduced 3.3 times as compared with the conventional method, while the metal pressure on the rollers was kept within the limits allowed (1,800 t) and by applying hydrogenated sunflower seed oil as a lubricator, the main motor load could be reduced. Maximum rolling speed attained 6.7 m/sec. Tests were also carried out to improve the annealing of hot rolled sheet coils of 23 X 2H8ФA (23Kh2NVFA), 17 X 2H8ФA (17Kh2NVFA), 12 X 2H8ФA (12Kh2NVFA), 25ХГСА (25KhGSA) and 30ХГСА (30KhGSA) steels and it was established that optimum conditions can be obtained by annealing unpickled sheet coils in a protecting atmosphere of nitrogen, containing not more than 0.5% CO₂, 4-6% CO and 4-6% H₂. Annealing takes place in this protecting atmosphere at 850°C for periods of 16,18,20 hours, depending on the weight of the charge, (≤ 6.7 t, 9-10 coils, respectively). By annealing in protective atmosphere it was possible

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Improved Production Process for Cold Rolled Alloy Steel Sheets

to prevent decarbonization and to increase the output of the pickling equipment considerably by setting free great part of its capacity. Further improvement in the quality of cold rolled 12G2A steel sheets could be attained by normalizing the sheets in coils, in electric hood-furnaces with ventilators. The heat conditions of the process were the same as when normalizing the sheets in small packets (heating up to 840-860°C, holding time: 1 hour, furnace temperature 900°, cooling under muffle to 180°C); the improvement in mechanical properties was obtained by the special size and the construction of the furnace securing a uniform heating and cooling in the entire coil while waste due to inadequate mechanical properties could be eliminated. This waste had amounted to about 80% when normalizing in the conventional production process single packets. There is 1 table.

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Improved Production Process for Cold Rolled Alloy Steel Sheets

① Steel brand; ② Initial and final thickness of the strip mm; ③ Strip width mm; ④ Total reduction %; ⑤ Load on the main motor a; ⑥ Metal pressure on the roll ton; ⑦ Rolling speed m/sec; ⑧ Number of passes.

Марка стали 1	Исходная и конечная толщина полосы, мм 2	Ширина полосы, мм 3	Суммарное обжатие % 4	Нагрузка главного двигателя 5	Давление металла на валки 6	Скорость прокатки м/сек 7	Количество пропусков 8
Реверсивный стан 1680							
12Г2А	2,3—0,8 {	1270	65,1	1200—2800	1400—1700	1,17—3,44	7
		1020	65,1	800—3000	800—1100	1,57—3,52	5
	2,3—1,0 {	1270	56,5	1200—3000	1300—1700	1,57—3,71	5—7
		1020	56,5	1000—3400	900—1700	1,57—3,60	5—3
	2,3—1,2	1020	47,8	1000—3000	850—1500	0,78—3,52	
	2,7—1,5	1020	44,5	1600—2500	900—1100	1,76—3,52	
	3,2—2,0	1270	37,5	2000—3200	1200—1700	1,57—3,52	
	3,7—2,5	1270	32,4	2000—3000	1400	2,54—3,14	
	4,0—3,0 {	1270	25,0	2000—3000	1400—1600	2,34—3,14	
		730	25,0	2000—2500	900—1100	2,34—3,14	3

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Improved Production Process for Cold Rolled Alloy Steel Sheets

25ХГСА	2,3—1,0	1020	56,5	800—2000	1200—2000	0,78—2,74	7
	2,7—1,5	1020	44,5	800—3000	1200—1800	0,78—3,14	3
	3,0—1,8	1020	40,0	800—1600	1200—1500	0,78—3,14	5
	3,2—2,0	1120	37,5	2000—2800	1300—1800	1,17—2,35	3
	3,7—2,5	1290	32,4	800—1600	1300—1800	0,62—1,95	7
	900—1020		32,4	800—2000	1050—1600	0,78—2,34	3
	4,0—3,0	1020	25,0	800—2000	1100—1500	0,75—3,14	3
	2,3—1,0	1020	56,5	400—1600	1300—2000	0,78—1,76	9—11
	2,5—1,2	1020	52,0	2000—3500	1300—1800	0,78—2,74	3
	2,7—1,5	1270	44,5	1000—3000	1000—1800	0,78—3,14	5—3
30ХГСА	730	44,5	1200—1600	1200—1300	0,78—1,57	3	
	3,0—1,8	1020	40,0	800—3000	800—1600	1,17—2,74	5
	3,2—2,0	1270	37,5	1200—3500	900—2000	0,78—3,14	5—3
	3,7—2,5	1020	37,5	400—3000	1200—2100	0,78—3,14	5—7
	4,0—3,0	1270	32,4	800—2800	1100—1700	0,79—1,57	5
12Г2А	Резерсивный стан 1200		25,0	400—3500	1100—1900	0,78—2,74	3—7
	2,0—0,5	1020	75,0	800—3000	1300—2000	0,47—2,15	3—5
				1000—6000	900—1600	1,05—6,70	7
				1500—4500	900—1400	2,09—6,70	7

Card 5/5

TROSHCHENKOV, N.A.; TILIK, V.T.; MOVSHOVICH, V.S.

Quality of the cut of strip edges. Metallurg 8 no.5:29
(MIRA 16:7)
My '63.

1. Zaporozhskiy staleplavil'nyy zavod.
(Metal cutting--Quality control)

FILONOV, V.A., inzh. [deceased]; YUDIN, M.I., inzh.; LOLA, V.N., inzh.;
MOSHOVICH, V.S., inzh.; AVRAMENKO, I.N., inzh.; PAVLISHCHEV, V.B., inzh.

New technology for the production of wide-strip stainless steel with
a thickness of less than 1,5 mm. Stal' 23 no.1:60-61 Ja '63.
(MLrA 16:2)

14 Zavod "Zaporozhstal'".

(Rolling (Metalwork))

ACC NR: AT6012089 (N)

SOURCE CODE: UR/3177/65/021/000/0038/0052

AUTHOR: Chekmarev, A. P. (Academician AN UkrSSR); Saf'yan, M. M. (Professor);
Meleshko, V. I. (Candidate of technical sciences); Prokof'yev, V. I. (Candidate of technical
sciences); Avramenko, I. N. (Engineer); Dodon, V. G. (Engineer); Kozachenko, I. A. (Engineer)
Kudin, D. P. (Engineer); Lola, V. N. (Engineer); Movshovich, V. S. (Engineer); Pavlishchev,
V. B. (Engineer); Soroko, L. N. (Engineer); Sukhobrus, Ye. P. (Engineer); Kholodnyy, V. P.
(Engineer); Yudin, M. L. (Engineer)

ORG: none

TITLE: Improvements in the techniques of production of Kh18Ni10T cold-rolled wide-strip
steel at the Zaporozhstal' Plant

SOURCE: Dnepropetrovsk. Institut chernoy metallurgii. Trudy, v. 21, 1965. Prokatnoye
proizvodstvo (Welding production), 38-52

TOPIC TAGS: stainless steel, bright stock lubricant, metal rolling, sheet metal, industrial
plant / Kh18Ni10T stainless steel, P-28 bright stock lubricant

ABSTRACT: On increasing to 11.8 tons from the previous 10.3 tons the weight of the ingots

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ACC NR: AT6012089

of Kh18Ni10T stainless steel used to produce 1000 mm wide sheets, the Zaporozhstal' Plant found it possible to reduce by 40-50 kg/mm² the wastage of metal during slabbing. Other innovations introduced in recent years at this plant include: settling, flame scarfsing and planing of ingot surfaces so as to eliminate defects of metallurgical origin prior to slabbing. These measures, along with improvements in the ingot reheating regime, have made it possible to increase the productivity of slabbing mills by 15-20%. The ingots themselves are cone-shaped in order to optimize the conditions of crystallization of the molten metal. After trimming and heating to 1050-1300°C the slabs proceed to a continuous strip mill where they are rolled into 1000 mm wide strip. By introducing the cold rolling of this strip in a reversible four-high mill with a reduction of 85% and by abandoning the practice of intermediate quenching during the production of 0.8-1.4 mm thick sheets rolled from 3.0 mm thick stock, using P-28 bright stock (highly viscous mineral oil) as the lubricant, using highly polished rolls, and increasing the convexity of the rolls to offset the increase in roll pressure, and thus streamlining the rolling techniques to an extent at which it became possible to roll in 13 passes 0.8 mm thick strip without overloading the rolls and main drive, the Zaporozhstal' Plant has found it possible to increase by 81% the productivity of its sheet mill and by 180%, the productivity of its reversible cold-rolling mill. The annual savings produced by these innovations amount to: for the slabbing-mill shop, 162,000 rubles; for the sheet-mill shop, 91,000 rubles; for the cold rolling shop, 719,000 rubles. Orig. art. has: 3 figures, 9 tables.

SUB CODE: 13, II/ SUBM DATE: none/ ORIG REF: 015

Card 2/2 LL

MOVSHOVICH, Ya.M. (Kiyev)

Creative cooperation. Shvein.prom. no.6:27-29 N-D '61.
(Clothing industry) (MIRA 14:12)
(Marketing)

MOVSHOVICH, Ya.M., inzh.

Cooperation of the "Ukraina" clothing factory in Kiev with
the retail trade. Leh.prom. no.1:70-73 Ja-Mr '62. (MIRA 15:9)
(Kiev--Clothing industry)

MOWSHOVICH, Ya.M.

Dispatcher system of production control. Leh.prom. no.3:24-85 Je - Ag
'62. (MIRA 16:2)
(Kiev--Clothing industry) (Industrial management)

MOVSHOVICH, Ya.M. (Kryev)

Mechanism of the automatic stop of the SM-2 quilting machine
needle in the extreme position. Shvein. prom. no.4:25-26
Jl-Ag '62. (MIRA 16:6)

(Sewing machines) (Automatic control)

MOGILEVICH, P.N. [Mohilevych, P.N.]; MOVSHOVICH, Ya.M. [Movshovych, IA.M.]

Organization of ~~shops~~ for the finishing, steaming and pressing of
manufactured products. Leh.prom. no.4:83-86 O-D '62. (MIRA 16:5)
(Kiev—Clothing industry—Management)

MOVSHOVICH, Ya.M. (Kiyev)

Dispatcher system of production control. Shvein.prom. no.6:6-8
N-D '62. (MIRA 15:12)
(Kiev--Clothing industry--Management)

MOVSEOVICH, Ye.O. (Odessa)

Discussion of D.G.Davidson's article, "New forms of Departmental Sanitary Service Work". Vop.pit 21 no.4:91-92 Jl-Ag '62.

(FOOD ADULTERATION AND INSPECTION) (MIRA 15:12)

MOVSHOVICH, Ye.V.

Baskunchak series of the Lower Triassic in the northeastern margin
of the Greater Donets Basin. Dokl. AN SSSR 161 no.5:1177-1180 Ap
'65. (MIRA 18:5)

1. Submitted August 13, 1964.

MOVSIKYAN, G.V.; SARKISYAN, M.S.; ARAKELYAN, E.A.

Absorption of acetylene by liquid ammonia and its desorption
by gaseous ammonia at low temperatures. Izv. AN Arm.SSR,
Khim. nauki 18 no.2:209-213 '65. (MIRA 18:11)

1. Kirovakanskiy nauchno-issledovatel'skiy i proyektnyy
institut khimii Soveta narodnogo khozyaystva Armyanskoy
SSR. Submitted February 21, 1964.

ACC NR:

AP7003784 (A) SOURCE CODE: UR/0426/66/019/010/0754/0759

AUTHOR: Karapetyan, N. G.; Movsisyan, G. V.; Voskanyan, S. M.; Chukhadzhyan, G. A.

ORG: All-Union Scientific Research and Design Institute of Polymers (Vsesoyuznyy nauchno-issledovatel'skiy i proyektnyy institut polimernykh produktov)

TITLE: Preparation of elastic polymers through cation polymerization of acetaldehyde

SOURCE: Armyanskiy khimicheskiy zhurnal, v. 19, no. 10, 1966, 754-759

TOPIC TAGS: polymerization, acetaldehyde, polymer, elastic polymer, cation polymerization, catalytic polymerization, synthetic rubber, ion exchange resin

ABSTRACT: A study was made of the polymerization of acetaldehyde using cation catalysts such as BF_3 -etherate, H_2SO_4 , AlCl_3 , and SbF_3 at 7-8°C to obtain elastic, rubber-like materials capable of vulcanization. The results obtained showed that the polymerization time was protracted, that the obtained polymers contained a large amount of low molecular impurities, and that the experimental results were difficult to reproduce. On the other hand when such ion exchange resins as the cation

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UDC: 541.64+547.281.2

ACC NR: AP7003784

exchanges KU-1, KU-1 "G", KU-5M, and KU-6 "G" were used as catalysts for acetaldehyde polymerization, elastic rubberoid polymers were obtained. With ion exchange tars the polymerization process is complete, lasting about 1-2 hours. The results are easily reproduced, the catalyst does not lose its activity after one operation, and is easily reclaimed. Orig. art. has: 1 figure and 2 tables. [Translation of authors' abstract]

[SP]

SUB CODE: 11,07,20 / SUBM DATE: 10Jun65 / ORIG REF: 002 / OTH REF: 005 /

Card 2/2

AUTHOR: Movsisyan, L.A. SOV/22-11-4-11/11

TITLE: On Some Specific Properties of Anisotropic Shells (O nekotorykh spetsificheskikh osobennostyakh anizotropnykh obolochek)

PERIODICAL: Izvestiya Akademii nauk Armyanskoy SSR, Seriya fiziko-matematicheskikh nauk, 1958,
Vol 11, Nr 4, pp 137 - 144 (USSR)

ABSTRACT: The author determines certain specific properties of the state of stress and of the displacements of a cylindrical conic or spherical shell, the material of which obeys the generalized Hook law, and which in every point possesses only one plane parallel with the medium surface of elastic symmetry (i.e. which has an anisotropy of rather general kind). There are 5 Soviet references.

ASSOCIATION: Institut matematiki i mehaniki AN Armyanskoy SSR (Institute for Mathematics and Mechanics, AS Armenian SSR)

SUBMITTED: March 4, 1958

Card 1/1

USCOMM DC-60,655

16(1)
AUTHOR:

Movsisyan, L.A.

05692
SOV/22-12-4-5/9

TITLE:

On the Calculation of an Anisotropic (not Orthotropic)
Cylindric Shell of Revolution

PERIODICAL:

Izvestiya Akademii nauk Armyanskoy SSR. Seriya fiziko-mate-
maticsikh nauk, 1959, Vol 12, Nr 4, pp 89 - 108 (USSR)

ABSTRACT:

Let a cylindric shell be given. In every point of the shell
there is assumed to exist only one plane of elastic symmetry;
it is assumed to be parallel with the medium surface. The
author investigates two problems: 1. The shell is subject to
a normal stress symmetric to the axis of revolution, whereby
the boundary conditions are also symmetric. The solution is
carried out under the assumption that the shell remains a
body of revolution during the deformation. The author compares
the solution with the results of the theory of flat shells.
2. The shell is subject to a change of temperature. The author
considers some examples. He thanks S.A. Ambartsumyan for the
guidance of the paper.

Card 1/2

05692

6

On the Calculation of an Anisotropic (not Orthotropic) Cylindric
Shell of Revolution

SOV/22-12-4-5/9

There are 1 figure, and 14 references, 12 of which are Soviet,
and 2 American.

ASSOCIATION: Institut matematiki i mehaniki AN Armyanskoy SSR (Institute
of Mathematics and Mechanics AS Armenian SSR)

SUBMITTED: March 1, 1959

Card 2/2

MOVSIKYAN, L.A.

On a dynamic problem of cylindrical shells. Dokl. AN Arm. SSR
32 no.5:225-230 '61. (MIRA 14:9)

1. Predstavleno chlenom-korrespondentom AN Armyanskoy SSR S.A.
Ambartsumyanom. (Elastic plates and shells)

16.75v-0
24.4200
AUTHOR:

S/022/62/015/002/005/009
D218/D302

TITLE:

Movsisyan, L.A.
Anisotropic cylindrical shell with an axially symmetric load

PERIODICAL:

Akademika nauk Armyanskoy SSR. Izvestiya. Seriya fiziko-matematicheskikh nauk, v. 15, no. 2, 1962, 111-119

TEXT: This is an extension of previous work (Ref. 1: Izvestiya AN ArmSSR, seriya FIZ, 12, no. 3, 1959) in which the author was concerned with a cylindrical shell of revolution, whose material had only one plane of elastic symmetry. It is pointed out that the elastic properties of the system depend on the angle between the principal elastic directions and the coordinate lines, and it is very important to determine the angle for which flexure is minimum and the critical stress maximum. In the present paper the author discusses the statics and dynamics of an anisotropic shell to determine the distribution of the material of the shell for which it is used to the best advantage. In the first part, the shell is assumed to be subjected to a normal surface load and the equations of motion are

f

Card 1/3

Anisotropic cylindrical shell with ... S/022/62/015/002/005/009
D218/D302

formulated. A differential equation is derived which is said to describe the flexure of a beam on an elastic base which in addition to the transverse load experiences a longitudinal stress. In the second part it is assumed that the shell is subjected to an external arbitrary, but time independent pressure. A solution of the equation of equilibrium is obtained by expanding the pressure into a Fourier series. Section 3 is concerned with the static stability of a shell subjected to longitudinal compressive stresses at the ends, and a solution for this case is obtained, including an expression for the minimum critical stress. The fourth section deals with the natural oscillations of a shell. A formula for the natural frequencies is derived. Finally, Section 5 gives a solution of the time-dependent differential equation for the flexure in the case where $w = w_0(x)$ at $t = 0$, and the mean surface of the shell is subjected to a longitudinal stress (w is the total flexure). The general conclusion is that it is possible to achieve the minimum flexure, or maximum critical stress, for a given shell by adjusting the distribution of the material. There are 4 tables and 6 Soviet-block references.

Card 2/3

Anisotropic cylindrical shell with ... S/022/62/315/Gu2/005/019
D218/D302

ASSOCIATION: Institut matematiki i mehaniki AN Armyanskoy SSR
(Institute of Mathematics and Mechanics AS Armenian
SSR)

SUBMITTED: September 1, 1961

Card 3/3

L 10506-63 EWP(r)/EMT(m)/BDS--AFFTC--EM
ACCESSION NR: AP3000082

8/0022/63/016/002/0003/0013

AUTHOR: Movsiyan, L. A.

TITLE: Unsteady forced vibration of cylindrical shells

SOURCE: AN ArmeSSR. Izv. Seriya fiziko-matem. nauk, v. 16, no. 2, 1963, 3-13

TOPIC INDEX: forced transient vibration, resonance passage, periodic shaking force, vibration dynamic factor, relative dynamic coefficient

ABSTRACT: Forced transient vibration (acceleration through resonance) of a thin orthotropic circular cylindrical shell in the case when the frequency of the exciting force is a linear function of time is discussed, with Ye. S. Sorokin's hypothesis (Sorokin, Ye. S., Metod ucheta neuprugogo soprotivleniya materiala pri raschete konstruktii na kolebaniye. Sb. Issledovaniya po dinamike sooruzheniy, M., 1951.) applied in accounting for the internal (Coulomb) friction. The theory of shallow shells is used, with two additional assumptions concerning inertia forces and damping. From equations of motion and elasticity relationships a system of differential equations in terms of displacements is obtained, from which an expression for determining the forced vibrations of a cylindrical shell is derived. This expression is applied to

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L 10506-63
ACCESSION NR: AP3000082

the vibration analysis of a closed cylindrical shell simply supported at the ends and of a cylindrical panel simply supported along all four edges, both under a periodic shaking force. The problem is reduced in both cases to evaluation of a series in eigenfunctions of vibration modes. The series coefficients are determined by means of static-load coefficients multiplied by dynamic factors of forced vibrations, given by a tabulated function. The experimental analysis of the vibrational behavior of the shell and the testing device used are described. The maximum value of the relative dynamic factor of forced vibration during passage through resonance is determined and given in a table, which shows a fair agreement between theoretical and empirical values. Orig. art. has: 41 equations, 1 table, and 1 figure.

ASSOCIATION: Institut matematiki i mekhaniki AN Arzynskoy SSR; (Institute of Mathematics and Mechanics, AN Armenian SSR)

SUMMITTED: 28Jan63

DATE ACQ: 12Jun63

ENCL: 00

SUB CODE: AP

NO RNF Sov: 013

OTHER: 000

ss/mf
Card 2/2

MOVSIYAN, L.A.

Resonance normal mode of a cylindrical shell. Dokl. AN Arm. SSR
35 no.3:113-118 '62. (MIRA 16:6)

1. Institut matematiki i mekhaniki AN Armyanskoy SSR. Fredstavleno
chlenom-korrespondentom AN Armyanskoy SSR S.A.Ambartsumyanom.
(Elastic plates and shells)

MOVSIKYAN, L.A. (Yerevan)

"On the buckling of cylindrical shells under longitudinal impact".

report presented at the 2nd All-Union Congress on Theoretical and Applied Mechanics, Moscow, 29 Jan - 5 Feb 64.

MOVSIKYAN, L.A.

Dynamical stability of cylindrical shells. Trudy Lab.gidr.mash.AN USSR
no.11 54-61 '64.
(MIRA 17:10)

L 6820-65 . EWP(r) ASD(f)/ASD(s)-5/AEDC(s)/ASD(d)/ESD(dp)/ESD(t)/RAEM(t)
ACCESSION NR: AP4044085 S/0022/64/017/004/0043/0050

AUTHORS: Movsisyan, L. A., Sarkisyan, V. S.

TITLE: On the solution of problems involving free vibrations of
anisotropic plates

SOURCE: AN ArmSSR. Izvestiya. Seriya fiziko-matematicheskikh nauk,
v. 17, no. 4, 1964, 43-50

TOPIC TAGS: elasticity theory, free vibration, natural frequency,
boundary value problem, approximation calculation

ABSTRACT: A method is proposed for determining the natural frequencies of the free vibrations of anisotropic plates. This method makes it possible to determine the natural frequencies with any prescribed accuracy, within the limits of the classical theory of plate bending. The problem of free vibrations of a freely supported rectangular plate is considered as a particular example. The method consists essen-

Card 1/2

L 6820-65

ACCESSION NR: AP4044085

tially of finding a series solution to the partial differential equation of the free vibrations. A recurrent system of partial differential equations is obtained first, with separable variables, and the zeroth approximation is then represented in the form of a homogeneous boundary value problem. The next higher approximations are determined with the aid of the preceding approximations, thus resulting in a process where the values of the natural frequencies are obtained with the accuracy increased in each succeeding step. Numerical values are given for type KAST-V glass-reinforced bakelite. Orig. art. has: 31 formulas.

ASSOCIATION: Institut matematiki i mekhaniki AN Armyanskoy SSR
(Institute of Mathematics and Mechanics, AN ArmSSR)

SUBMITTED: 13Nov63

ENCL: 00

SUB CODE: ME, MA

NR REF SOV: 005

OTHER: 000

Card: 2/2

L 1hhh2-65 EWT(d)/EWT(m)/EWP(w)/EWA(d)/EWP(v)/EWP(k)/EWA(h)
ASD(f)-2/AFTC(D) EM
ACCESSION NR: AP4049199

Pf-4/Peb
S/0022/64/017/005/0043/0046

AUTHOR: Movsisyan, L. A.

B

TITLE: Axial impact on a cylindrical shell

SOURCE: AN ArmSSR. Izvestiya. Seriya fiziko-matematicheskikh nauk,
v. 17, no. 5, 1964, 43-46

TOPIC TAGS: shell, cylindrical shell, longitudinal impact, axial
impact

26

ABSTRACT: The elastic behavior of an orthotropic circular cylindrical shell under axial impact by a rigid solid is discussed. The principal directions of elastic symmetry coincide with the curvature lines which are taken as coordinate lines. One end of the cylinder is fixed and an impact is applied to the free end. It is assumed that the impact load (without twisting) is uniformly distributed over the face and that the rigid solid moves with the end of the shell as a whole. The equation for the motion of a shell element, as derived by S. A. Ambartsumyan in his theory of anisotropic shells, is adapted by adding inertia terms and by introducing an unknown displacement func-

Card 1/2

L 11442-65

ACCESSION NR: AP4049199

tion and the solid-to-shell weight ratio. An expression for the displacement function is derived from which impact stresses and displacements can be determined. Orig. art. has: 23 formulas.

ASSOCIATION: Institut matematiki i mehaniki AN Armyanskoy SSR
(Institute of Mathematics and Mechanics, AN Armenian SSR)

SUBMITTED: 25Feb64

ENCL: 00

SUB CODE: AS

NO REP SOV: 002

OTHER: 001

ATD PRESS: 3136

Card 2/2

L 25309-65 EWT(d)/EWT(m)/EWP(w)/EWA(d)/EWP(v)/T/EWP(t)/EWP(k)/EWP(b)/EWA(h) Pf-4/
Peb EM/JD
ACCESSION NR: AP5005164 S/0022/64/017/006/0057/0064 28
27
15

AUTHOR: Movsisyan, L. A.

TITLE: On buckling of cylindrical shells under longitudinal impact.

SOURCE: AN ArmSSR. Izvestiya. Seriya fiziko-matematicheskikh nauk, v. 17, no. 6,
1964, 57-64

TOPIC TAGS: cylindrical shell, circular cylindrical shell, shell buckling,
cylindrical shell buckling, cantilever cylindrical shell, shell impact, cylindrical
shell impact

ABSTRACT: The buckling behavior of an elastic, closed, perfect, cantilever, built-in, circular cylindrical shell under longitudinal axisymmetric impact at its free end by a rigid solid is discussed. Before the impact, the shell was in membrane state of stress; the pattern of bending stresses produced by the impact depends on the length of that portion of the shell in which the bending stress-wave is propagated; after a certain length (called critical) of this portion is reached, the amplitudes of bending stresses start to increase infinitely. The formulation of the problem now is to find the critical buckling length for a given impact load. Since the buckling is of local character, the boundary conditions are also set for

Card 1/2

L 25309-65

ACCESSION NR: AP5005164

the front of the compression waves. Dynamic-stability equations "in variations" are used for determining the critical buckling length. It is shown that in stability analysis of shells subjected to longitudinal impact, not only the axial compression stresses, but also the hoop stresses must be taken into account, and that the buckling in this case proceeds in the same way as under combined action of axial compression and bending. The critical buckling length, the stresses, and the time of buckling are determined for a simply supported semi-infinite cylindrical shell under axial impact with a certain velocity. Orig. art. has: 22 equations. [VK]

ASSOCIATION: Institut matematiki i mekhaniki AN Armyanskoy SSR (Institute of Mathematics and Mechanics, AN ArmSSR)

SUBMITTED: 20Nov63

ENCL: 00

SUB CODE: AS

NO REF Sov: 005

OTHER: 001

ATD PRESS: 3181

Card 2/2

MOVSIKYAN, L.A.

Loss of equilibrium by cylindrical shells due to longitudinal
impact. Izv. AN Arm. SSR. Ser. fiz.-mat. nauk 17 no.6:57-64
'64. (MIRA 18:3)

1. Institut matematiki i mekhaniki AN ArmSSR.

MOVSIKYAN, L.A.

Vibrations of a beam of periodically varying length. Dokl. AN Arm.
SSR 41 no.1:22-26 '65. (MIRA 18:8)

1. Institut matematiki i mekhaniki AN ArmSSR. Submitted February
17, 1965.

SARKISYAN, V. (Yerevan); MOVSISYAN, L.A. (Yerevan).

Determining critical loads for anisotropic plates. Izdat. Nauk.
5 no.4:777-782 '65. (MIRA 12/67)

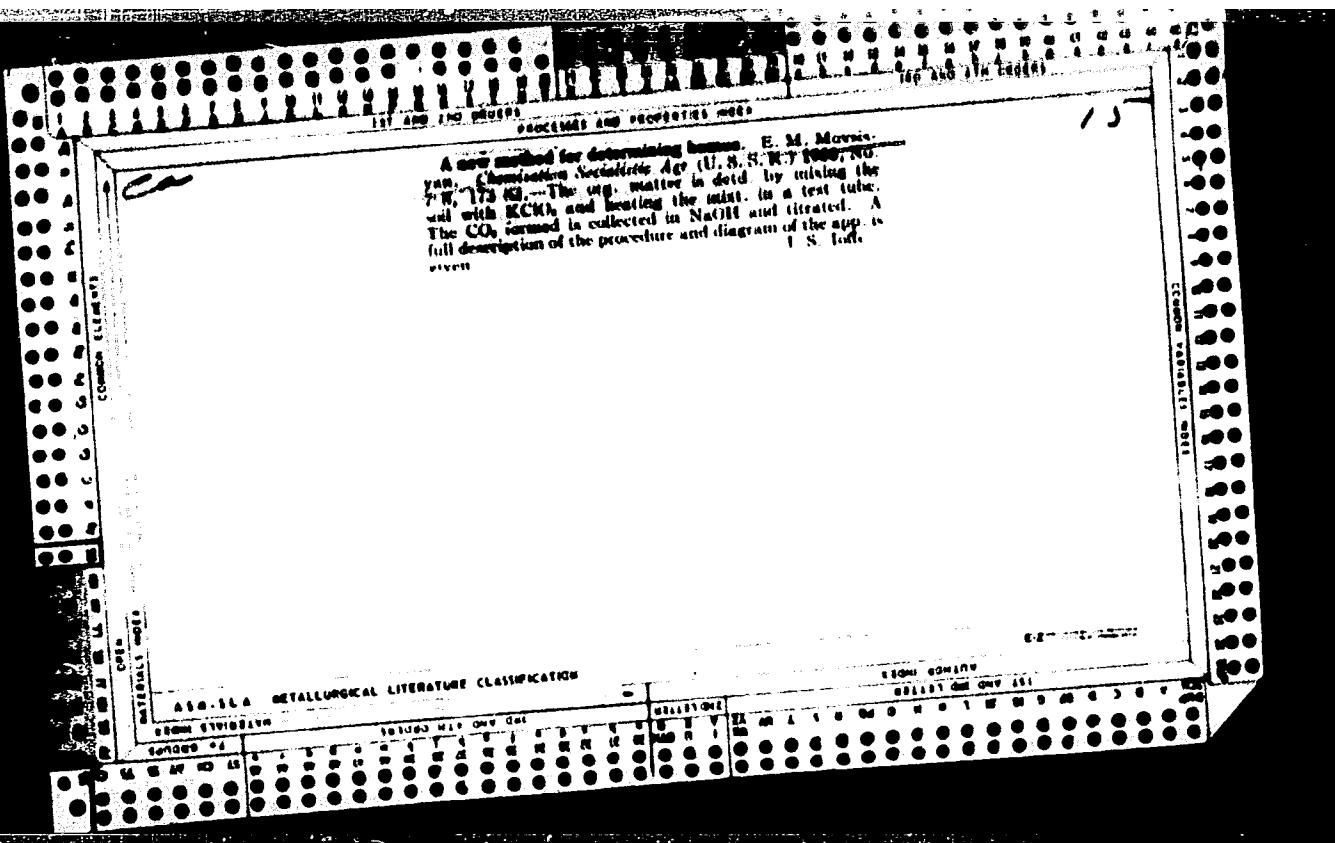
MOVSIKYAN, L.A.

Vibration and stability of beams of variable length. Izv. AN
Arm. SSR. Ser. fiz.-mat. nauk 18 no.6:19-27 '65.
(MIRA 19:1)
1. Institut matematiki i mekhaniki AN Armyanskoy SSR.

GRIGORYAN, G.G.; GAZARYAN, S.A.; NOVOLYAM, V.A.; SKOOGUYAN, T.A.

Production of nitrosyl chloride by the reaction of syn-syndio
chloride with nitrosylsulfuric acid. Izv. AN Arm. SSR. Khim.
nauki 18 no.4:408-414 '65.

1. Yerevanskiy nauchno-issledovatel'skiy institut chkh.
Submitted July 17, 1964.



MOVSISYAN, Ye.M.

Plant culture vessel for automatic watering and measuring of evaporation without weighing. Dekl.AN Arm.SSR 12-ne.3:91-95
'50. (MIRA 9:10)

1.Armyanskiy Sel'skokhozyaystvennyy institut, Yerevan. Predstav-
lene G.S.Davtyanom.
(Botanical apparatus)

MOVSIKYAN, Yegishe Movsesovich; DAVTYAN, G.S., red.; GOROYAN, G..
tekhn. red.

[Agrochemical investigation of carbonaceous soils of the Ararat
Plain] Agrokhimicheskie issledovaniia karbonatnykh pochv Ara-
ratskoi ravniny. Erevan, Izd-vo Glav.uprav.sel'khoz.nauki MSKh
Armianskoi SSR, 1958. 209 p.
(Ararat region--Soils) (MIRA 13:11)

MOVSIKYAN, Ye. M., Doc Agric Sci (diss) -- "Agrochemical investigations of the carbonate content and humus of the soils of the Ararat plain (With the methodology of the study)". Yerevan, 1959. 35 pp (Soil Inst im V. V. Dokuchayev of the Acad Sci USSR), 175 copies (KL, No 11, 1960, 135)

MOVSOVIC, I. A.

On the morphology and pathogenesis of scoliosis. Acta chir. orthop. trauma. Cech. 29 no.1:83-94 F '62.

1. Klinické oddelení dětské ortopedie a traumatologie, vedoucí člen korespondent ALV SSSR prof. V. D. Čaklin Centralní institut traumatologie a ortopedie ministerstva zdravotnictví SSSR, ředitel radny člen ALV SSSR profesor N. N. Priorov Moskevská vojenská ortopedická nemocnice, nacelník doktor lek. ved S. N. Voskresenskij.

(SCOLIOSIS pathol)

MOVSUMOV, Agaasaf Aga Kerim oglu; SEID-RZA, M.K., red., kand.tekhn.nauk;
SHTEYNGEL', A.S., red.izd-va

[Using crooked sectional turbodrills for directional drilling]
Opyt burenija naklonnykh skvashin iskrivlennymi sektcionnymi
turboburami. Baku, Azerbaidzhanskoe gos.izd-vo neft. i nauchno-
tekhn.lit-ry. 1959. 54 p.
(Turbodrills) (MIRA 13:3)

MOVSIYANTS, A.P.

25079 MOVSIYANTS, A.P. Novaya Senokosilka. (KS-10) Sots. Zhivotnovodstvo, 1949,
No 3, S. 75-77

SO: Letopis', No. 33, 1949

MOVSIANTS, A.P.

25825. MOVSIANTS, A.P. Sotsialisticheskomy zhivotnovodstvu prochnuyu
kormouuyu bazu. Sov. zootekhnika, 1949, № 4, S. 3-8.

SO: Letopis' Zhurnal'nykh Statey Vol. 34, Maskva 1949

MOVSIANTS, A.P., Chief
Administration of Forage and Pastures, Ministry of Agriculture, USSR
"Store up more forage of good quality."
SO: Vet. 27 (8) 1950, p. 38

MOVSTANTS, A. P., Chief
Administration of Forage and Pastures
Ministry of Agriculture, USSR
"Accounting, storage and use of coarse fodder on kolkhozes."
SO: Vet. 27 (10) 1950, p. 29

DAVTYAN, G.S.; MOVSIYAN,

Successes and prospects for the development of agrochemical science in
the Armenian S.S.R. Izv.AN Arm.SSR.Biol.i sel'khoz.nauki. 4 no.3:
193-210 '51. (MLRA 9:8)

1. Deystvitel'nyy chlen AN Arm. SSR.
(Armenia--Agricultural chemistry)

1. MOVSISYANTS, A. P.

2. USSR (600)

4. Feeding and Feeding Stuffs

7. Constant feed supply is the basis for stall raising of livestock. Korm. baza
3 no. 12, 1952.

9. Monthly List of Russian Accessions, Library of Congress, February 1953. Unclassified.

MOVSIANTS, A. P.

MOVSIANTS, A. P.

Grazing

Efficient use of seasonal pastures. Sov. zootekh.
7 no. 10, 1952.

Monthly List of Russian Accessions, Library of Congress, December 1952. UNCLASSIFIED

MOVSIANTS, A. P. - SMIRNOV, I. S.

Feeding and Feeding Stuffs

Build up a larger feed supply for communal animal husbandry. Sov. zhiv., 14 no. 3, 1952.

Monthly List of Russian Accessions, Library of Congress, November 1952. Unclassified.

1. MOVSIKYANTS, A. P.
2. USSR (600)
4. Feeding and Feeding Stuffs
7. Expend feed economically and according to plan. Sots. zhiv. 14 No. 10, 1952.

9. Monthly List of Russian Accessions, Library of Congress, January 1953. Unclassified.

MCVITSYANTS, A. P.

Feeding and Feedings Stuffs

Methods for preparing and using feeds. Dost. sel'khoz. No. 2, 1953.

9. Monthly List of Russian Accessions. Library of Congress, June 1953. Unclassified.

MCVSISYANTS, A. P.

Feeding and Feeding Stuffs

Simplest methods for preparing feeds for feeding. Korm. zhurn. 4 Nro. 2 , 1953.

9. Monthly List of Russian Accessions, Library of Congress, June 1953. Unclassified.

1. MOVSI5YANTS, A. P.
2. USSR (600)
4. Nogaysk Steppe - Agriculture
7. Feed supply possibilities in Nogaysk Steppe. Sots. zhiv. 15 No. 4, 1953.

9. Monthly List of Russian Accessions, Library of Congress, April 1953, Uncl.

KONYUSHKOV, M.S., kandidat sel'skokhozyaystvennykh nauk; KOVSYANTS, A.P., kandidat sel'skokhozyaystvennykh nauk; YEL'SUKOV, M.P., kandidat sel'skokhozyaystvennykh nauk, redaktor; YEREMIN, G.P., kandidat sel'skokhozyaystvennykh nauk, redaktor; SMELOV, S.P., doktor biologicheskikh nauk, professor; TSATSENKIN, I.A., doktor biologicheskikh nauk, professor; MOGOZOV, D.N., redaktor; HALLOD, A.I., tekhnicheskiy redaktor

[Meadow and pasture manual] Spravochnik po senokosam i pastbishcham. Moskva, Gos. izd-vo selkhoz. lit-ry, 1956. 703 p. (MLRA 9:11)

1. Moscow. Vsesoyuznyy nauchno-issledovatel'skiy institut kormov.
(Pastures and meadows)

KOLESNEV, S.G.; MOVSISYANTS, A.P., etv. na vypusk

[Machine-tractor stations are the industrial basis of collective farm production] Mashinno-traktornye stantsii - industrial'naia baza kolkhoznego preizvedstva. [Moskva, M-vo sel'.khoz. SSSR, 1957] 13 p.

(Machine-tractor stations)

(MIRA 11:12)

MOISEYEV, M.I.; MOVSISYANTS, A.P., otv. za vypusk

[Collective farms during 40 years of the Soviet regime] Kolkhozy
za 40 let sovetskoi vlasti. [Moskva, M-vo sel'.khoz.SSSR, 1957]
15 p.

(MIRA 11:12)

(Collective farms)

DAVITAYA, F.F., doktor sel'skokhoz.nauk; MOVSISYANTS, A.P., otv. za vypusk

[Natural and climatic conditions and differentiated farm
management] Prirodno-klimaticheskie usloviia i differentatsirovaniye
vedenie sel'skogo khoziaistva. [Moskva, M-vo sel'.khоз.SSSR, 1957]
19 p.

(MIRA 11:12)

(Crops and climate) (Farm management)

LOZA, G.M.; MOVSISYANTS, A.P., etv. za vypusk

[State farms during 40 years of the Soviet regime] Sovkhozy za
40 let sovetskoi vlasti. [Moskva, M-vo sel'.khoz.SSSR, 1957]
23 p. (MIRA 11:12)
(State farms)

LOBANOV, P.P., akademik; MOVSISYANTS, A.P., etv. za vypusk

[Agricultural science in the U.S.S.R. on the 40th anniversary of
the Great October Socialist Revolution] Sel'skokhozyaistvennaya
nauka v SSSR; k 40-letiiu Velikoi Oktiabr'skoi sotsialisticheskoi
revoliutsii. [Moskva, M-vo sel'.khoz. SSSR, 1957] 62 p. (MIRA 11:12)

1. President Vsesoyuznoy akademii sel'skokhozyaystvennykh naук im.
V.I. Lenina.

(Agriculture)

MOVSIKYANTS, A.P., kand. sel'skokhozyaystvennykh nauk

Science of feeding production on the fortieth anniversary of the Great October. Dokl. Akad. Sel'khoz. 22 no.11:27-29 '57.

(MIRA 11:4)

1. Vsesoyuznaya ordena Lenina akademiya sel'skokhozyaystvennykh nauk imeni V.I. Lenina.

(Feeding and feeding stuffs)

SINYAGIN, I.I., red.; MOVSISYANTS, A.P., otv. za vypusk; PAVLOV, R.P.,
red.; POTOTSKAYA, M.M., tekhn.red.

[Farming practices in Novosibirsk Province; data from the out-
session of the Lenin All-Union Academy of Agricultural Sciences,
July 29th-August 2nd, 1958] O sisteme vedeniya sel'skogo
khoziaistva v Novosibirskoi oblasti; materialy vyezdnoi sessii
Akademii 29 iulija - 2 avgusta 1958 goda, g.Novosibirsk. Nomo-
sibirsk, Novosibirskoe knizhnoe izd-vo. Vol.2. 1958. 431 p.
(MIRA 13:2)

1. Vsesoyuznaya akademiya sel'skokhozyaystvennykh nauk imeni
V.I.Lenina. 2. Chlen-korrespondent i glavnyy uchenyy sekretar'
Prezidiuma Vsesoyuznoy akademii sel'skokhozyaystvennykh nauk
imeni V.I.Lenina (for Sinyagin).
(Novosibirsk Province--Agriculture)

SINYAGIN, I.I., red.; MOVSISYANTS, A.P., otv. za vypusk; NIKOLAYEVA,
G.F., red.; PAVLOV, R.P., red.; POTOTSAYA, N.M., tekhn.red.

[Farm management system in Novosibirsk Province; materials
of the out-session of the Academy, July 29th-August 2d, 1958,
in the City of Novosibirsk] O sisteme vedeniya sel'skogo
khoziaistva v Novosibirskoi oblasti; materialy vyezdnoi sessii
Akademii, 29 iuliusa-2 avgusta 1958 goda, g. Novosibirsk.
Novosibirsk, Novosibirskoe knishnoe izd-vo. Vol.1. 1958.
416 p. (MIRA 14:4)

1. Vsesoyuznaya akademiya sel'skokhozyaystvennykh nauk imeni
V.I.Lenina. 2. Glavnnyy uchenyy sekretar' Prezidiuma Vse-
soyuznoy akademii sel'skokhozyaystvennykh nauk imeni V.I.Lenina,
chlen-korrespondent Vsesoyuznoy akademii sel'skokhozyaystvennykh
nauk imeni V.I.Lenina (for Sinyagin).
(Novosibirsk Province--Agriculture)

ROSTOVTSKIV, N.F., akademik, red.; SINYAGIN, I.I., red.; MOVSISYANTS, A.P.,
otvetstvennyy za vypusk; PEVZNER, V.I., tekhn. red.

[Methods for increasing the output of livestock products] Puti
uvelicheniya proizvodstva produktov zhivotnovodstva. Pod red.
N.F. Rostovtseva i I.I. Siniagina. Moskva, Gos. izd-vo sel'khoz.
lit-ry, 1958. 461 p.
(MIRA 11:10)

1. Vsesoyuznaya Akademiya sel'skokhozyaystvennykh nauk imeni V.I.
Lenina. 2. Chlen-korrespondent Vsesoyuznoy Akademii sel'skokhozyay-
stvennykh nauk imeni V.I. Lenina (for Sinyagin).
(Stock and stockbreeding)

SMELOV, Sergey Petrovich, prof., doktor biolog.nauk; MOVSISYANTS, Agaron Pogosovich, kand.sel'skokhoz.nauk; TULIN, M.S., red.; GUREVICH, M.M., tekhn.red.

[Improvement and correct use of meadows and pastures] Uluchshenie i previl'noe ispol'zovanie lugov i pastbishch. Moskva, Gos.izd-vo sel'khoz.lit-ry, 1959. 87 p.
(Pastures and meadows) (MIRA 13:6)

SINYAGIN, I.I., red.; MOVSISYAN, A.P., otv. za vypusk; SHCHEGLOV,
Yu.A., red.; NIKOLAYEVA, G.F., red.; LUKASHEVICH, V., tekhn.red.

[Problems of agriculture and erosion control in steppe and
forest-steppe regions of the U.S.S.R.; materials of the out session
of the Lenin All-Union Academy of Agricultural Sciences held in
Saratov from October 7th-14th, 1958] Voprosy zemledelija i bor'by
s eroziei pochv v stepnykh i lesostepnykh raionakh SSSR; materialy
vyezdnoi sessii VASKhNIL 7-14 oktiabria 1958 goda, g. Saratov.
Saratov, Saratovskoe knizhnoe izd-vo. Vol.1. 1959. 348 p. Vol.2.
513 p. (MIRA 13:2)

1. Vsesoyuznaya akademiya sel'skokhozyaystvennykh nauk imeni V.I.
Lenina. 2. Glavnnyy uchenyy sekretar' prezidiuma Vsesoyuznoy
akademii sel'skokhozyaystvennykh nauk imeni V.I.Lenina; chlen-
korrespondent Vsesoyuznoy akademii sel'skokhozyaystvennykh nauk
imeni V.I.Lenina (for Sinyagin).

(Agriculture) (Soil conservation)

SINYAGIN, I.I., red.; MOVSISYANTS, A.P., otv. za vypusk; NIKOLAYEVA, G.F.,
red.; PAVLOV, R.P., red.; POTOTSAYA, N.M., tekhn. red.

[Farm management system in Novosibirsk Province; materials of the
outsession of the Lenin All-Union Academy of Agricultural Sciences,
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(Pastures and meadows)

ACCESSION NR: AT4017417

8/0000/63/000/000/0186/0191

AUTHOR: Movsun-Zade, A. A.; Livshits, R. M.; Rogovin, Z. A.; Konkin, A. A.

TITLE: Synthesis of grafted copolymers of cellulose and polybutylacrylate.

SOURCE: Tsnellyuloza i yeye proizvodnyye, sbornik statey (Cellulose and its derivatives). Moscow, 1963, 186-191

TOPIC TAGS: cellulose, cellulose copolymer, grafted copolymer, polybutylacrylate, copolymerization, polymerization catalyst

ABSTRACT: $\text{Ce}(\text{NH}_4)_2(\text{NO}_3)_6$ was used as the catalyst, the quaternary ammonium salt of diethylaminomethylidodecyl ester (alkalon D) as the emulsifier and cotton cellulose, hydrated cellulose and butylacrylate as the materials in a synthesis of grafted polymers which, depending on the emulsifier concentration, Ce^{4+} concentration, pH of the medium and temperature, yielded products containing 51-94% cellulose and 6-48% polybutylacrylate. The butylacrylate polymerization rate and the proportion of polybutylacrylate in the polymer were found to rise as the emulsifier concentration increased up to 0.20 g/100 ml. A decrease in temperature from 35 to 10°C markedly depressed the formation of the homopolymer without affecting the grafted polymerization rate, while both the rate of polymerization and

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ACCESSION NR: AT4017417

that of grafting decreased with the pH in tests with 0.05 - 1 mol/liter HNO₃ in the reaction medium. Orig. art. has: 4 tables and 2 graphs.

ASSOCIATION: Moskovskiy tekstil'nyy institut (Moscow Textile Institute)

SUBMITTED: 21Feb63

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NO REF Sov: 003

OTHER: 006

Card 2/2

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Aserb. neft. khoz. 37 no. 5:21-23 My '58. (MIRA 11:8)
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